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SEP 20 2007

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method comprising:

writing a first variable length packet to a first portion of a buffer via a first port of the buffer, wherein the first variable length packet is pre-rotated prior to the writing to align the first variable length packet with a previous packet under control of a write pointer signal; and

writing a second variable length packet to a second portion of the buffer via a second port of the buffer while writing the first variable length packet, wherein the second variable length packet is written without the pre-rotation; and

transmitting an output word from the buffer corresponding to one of the first and second variable length packets, wherein the output word has a fixed length.

Claim 2 (cancel)

Claim 3 (original): The method of claim 1, further comprising dynamically determining the location of the first portion based on a position of a previous packet and a size of the first variable length packet.

Claim 4 (original): The method of claim 1, further comprising padding the first variable length packet to form a first output packet.

Claim 5 (original): The method of claim 4, further comprising outputting the first output packet when a next variable length packet is received by the buffer.

Claim 6 (original): The method of claim 1, wherein the first portion is at any location of the buffer.

Claims 7 - 11 (cancel)

Claim 12 (currently amended): An apparatus comprising:

a write decoder including a thermometer decoder to set a packet size of a variable length packet, the thermometer decoder having n inputs corresponding to a size of the variable length packet and m outputs, the thermometer decoder to select how many of the m outputs are active based on the n inputs to set the size of the variable length packet, and a first shifter coupled to the thermometer decoder to receive the m outputs and an address input and to determine an amount of rotation for the m outputs based on the address input; and

a data array coupled to the write decoder to store the variable length packet under enablement by an output of the first shifter.

Claims 13 – 14 (cancel)

Claim 15 (currently amended): The apparatus of claim 13, further comprising a second shifter coupled to the data array to rotate the variable length packet prior to entry in the data array.

Claim 16 (currently amended): An article comprising a machine-readable storage medium containing instructions that if executed enable a system to:

write a first variable length packet to a first portion of a buffer via a first port of the buffer, wherein the first variable length packet is pre-rotated prior to the writing to align the first variable length packet with a previous packet under control of a write pointer signal; and

write a second variable length packet to a second portion of the buffer via a second port of the buffer while the first variable length packet is written, wherein the second variable length packet is written without the pre-rotation; and

transmit an output word from the buffer corresponding to one of the first and second variable length packets, wherein the output word has a fixed length.

Claim 17 (cancel)

Claim 18 (original): The article of claim 16, further comprising instructions that if executed enable the system to determine the location of the first portion based on a position of a previous packet and a size of the first variable length packet.

Claim 19 (original): The article of claim 18, wherein the location of the first portion may be at any location in the buffer.

Claim 20 (currently amended): A system comprising:
a switch fabric; and
a storage buffer coupled to the switch fabric to store [[a]] at least two variable length packet packets in a data array, the storage buffer having a decoder to set a packet size of the variable length ~~packet packets~~, the decoder including a thermometer decoder to set a packet size of the variable length packets, the thermometer decoder having n inputs corresponding to a size of one of the variable length packets and m outputs, the thermometer decoder to select how many of the m outputs are active based on the n inputs to set the size of the one of the variable length packets, and a first shifter coupled to the thermometer decoder to receive the m outputs and an address input and to determine an amount of rotation for the m outputs based on the address input.

Claim 21 (original): The system of claim 20, further comprising a media access controller coupled to the storage buffer.

Claim 22 (original): The system of claim 20, further comprising a system packet interface coupled between a network processor and the storage buffer.

Claim 23 (original): The system of claim 22, further comprising a system packet interface bus coupled between the network processor and the system packet interface.

Claims 24 - 25 (cancel)

Claim 26 (currently amended): The system of claim [[24]] 20, wherein m equals 2^n .

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Claims 27 - 30 (cancel)

Claim 31 (new): The method of claim 1, further comprising writing the first and second variable length packets to a data array of the buffer, the data array including a plurality of elements, each of which may load data from either one of the first or second variable length packets.

Claim 32 (new): The apparatus of claim 12, wherein the data array includes a plurality of elements, each of which may load data from either one of the first or second variable length packets.

Claim 33 (new): The apparatus of claim 32, wherein the data array is to write a second variable length packet to a second portion of the buffer via a second port of the buffer while writing of the first variable length packet via a first port of the buffer, wherein the second variable length packet is written without the pre-rotation, and to transmit an output word from the buffer corresponding to one of the first and second variable length packets, wherein the output word has a fixed length.

Claim 34 (new): The system of claim 20, wherein the data array includes a plurality of elements, each of which may load data from a selected one of the variable length packets.

Claim 35 (new): The system of claim 34, wherein the data array is to write a second variable length packet to a second portion of the plurality of elements via a second port of the data array while a first variable length packet is written to a first portion of the plurality of elements via a first port of the data array, wherein the first variable length packet is to be pre-rotated prior to being written and the second variable length packet is written without the pre-rotation, and to transmit an output word from the data array corresponding to one of the first and second variable length packets, wherein the output word has a fixed length.